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10/577,055	04/24/2006	Dan Raphaeli		9928
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Dan Raphaeli				
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			EXAMINER	
			JEANGLAUDE, JEAN BRUNER	
			ART UNIT	PAPER NUMBER
			2819	
			MAIL DATE	DELIVERY MODE
			12/17/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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# Office Action Summary

Application No.

10/577,055

Applicant(s)

RAPHAELI, DAN

Examiner

Jean B. Jeanglaude

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on amendment filed on 10-10-07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21, 24-26, 28, 30, 34, 35 and 37-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-21, 24-26, 28, 30, 34-44 and 52-55 is/are allowed.
- 6) ☒ Claim(s) 45-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

**Response To Amendments/Arguments**

1. Applicant's arguments with respect to claims 1 – 21, 24 – 26, 28, 30, 34, 35, 37 – 55 have been considered but are moot in view of the new ground(s) of rejection.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 45 – 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Regarding claim 45, it is unclear how the “multi-stage digital signals constructor” is performed.
5. Claims 46 – 50 are automatically rejected under 112, 2<sup>nd</sup> due to the fact that they depend on claim 45 which is rejected under 112, 2<sup>nd</sup>.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 45, 46, 47, 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olmstead et al. (US Patent Number 4,968,989) in view of James (US Patent Number 3,541,319).

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8. Regarding claims 45, 47, 48, Olmstead discloses a multi stage DAC (fig. 1) wherein each stage comprises means for synchronizing multi-stage digital signals ( paragraph bridging col. 4 and 5). Olmstead does not specifically disclose a system that comprises and amplifier that amplifies an input digital signal; means for integrating the amplified digital signal and means for adding at least one predefined correction of the amplified digital signal. However, James, in a related field, discloses a system (fig. 1) that amplifies an input digital signal (col. 3, lines 18, 19; col. 5, lines 5 - 15; means for integrating the amplified digital signal (fig. 1) and means for adding at least one predefined correction of the amplified digital signal (col. 5, lines 49, 51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Olmstead et al.'s system with that of James in order to synchronizing an input signal to an output of an integrator.

9. Regarding claim 46, the combination of Olmstead et al and James would achieve the same end result as the claimed invention since one ordinary skill in the art would adjust the RMS to perform equally as desired. Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made that Olmstead and James combined would produce analog output signal having a desired RMS at a particular frequency.

10. Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsusaka (US Patent number (US Patent Number 6,498,575) in view of James (US Patent Number 3,541,319).

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11. Regarding claim 51, Matsusaka discloses a parallel multi-stage digital to analog converters (fig. 6) comprises plurality of DA waveform converters (603) receiving at least two different digital input signal; the plurality of DAC (603) are placed on the same silicon substrate, featuring crosstalk between themselves; a common DSP whereby the DSP is treating a crosstalk effect (col. 12, lines 18 – 21).. As disclosed, Matsusaka does not teach a system wherein each of the plurality of DAC waveform converters comprises an amplifier that amplifies an input digital signal, integration means for integrating the amplified digital signal; a synchronization clock. James, in a related field, discloses a system (fig. 1) that amplifies an input digital signal (col. 3, lines 18, 19; col. 5, lines 5 – 15; means for integrating the amplified digital signal (fig. 1); a synchronizer (16) . Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Matsusak's system with that of James in order to synchronizing an input signal to an output of an integrator.

#### Allowable Subject Matter

12. Claims 1 – 21, 24 – 26, 28, 30, 34 – 44, 52 – 55 are allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Jeanglaude whose telephone number is 571-272-1804. The examiner can normally be reached on Monday - Friday 7:30 A. M. - 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie can be reached on 571-272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jean Bruner Jeanglaude  
Primary Examiner  
December 11, 2007